10/531,252

(FILE 'HOME' ENTERED AT 13:00:20 ON 10 NOV 2007)

FILE 'CAPLUS' ENTERED AT 13:03:48 ON 10 NOV 2007

```
=> s reduction of palladium
        332043 REDUCTION
        172232 PALLADIUM
L1         728 REDUCTION OF PALLADIUM
                (REDUCTION(1W)PALLADIUM)

=> s l1 and propylene
        192172 PROPYLENE
L2           4 L1 AND PROPYLENE

=> d 1-4 bib abs

L2   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2002:794351  CAPLUS
DN   137:295352
TI   Method and solution-suspended particulate palladium catalyst for the
     manufacture of acrylic or methacrylic acids via the oxidation of
     propylene or isobutylene
IN   Unruh, Jerry D.; Diaz, Norma Jean; Molina, Robert Ray; Snyder, Phillip
     Sidney; Windhorst, Kenneth Allen
PA   USA
SO   U.S. Pat. Appl. Publ., 10 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2002151747        A1    20021017    US 2001-833945         20010412
     CA 2412307           A1    20021024    CA 2002-2412307        20020411
     WO 2002083299        A2    20021024    WO 2002-US11386        20020411
     WO 2002083299        A3    20030227
         W:  AU, BR, CA, CN, CZ, ID, IN, JP, KR, MX, SG, US, ZA
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, TR
     AU 2002258767        A1    20021028    AU 2002-258767         20020411
     BR 2002004827        A     20030617    BR 2002-4827           20020411
     EP 1377372           A2    20040107    EP 2002-728734         20020411
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR
     JP 2004519326        T     20040702    JP 2002-581095         20020411
     IN 2002KN01506       A     20040717    IN 2002-KN1506         20021210
     ZA 2002010038        A     20031211    ZA 2002-10038          20021211
     MX 2002PA12317       A     20040906    MX 2002-PA12317        20021211
     US 2004181082        A1    20040916    US 2003-415714         20030919
PRAI US 2001-833945       A     20010412
     WO 2002-US11386      W     20020411
AB   A method for the manufacture of acrylic acid or methacrylic acid by the
oxidation
     of propylene or isobutylene is achieved by: (a) reducing
     palladium acetate to unsupported palladium with propylene in an
     oxygen-free single- or two-phase aqueous solution containing as a co-solvent a
maximum
     concentration of a C2-C6 carboxylic acid or C3-C6 ketone in a reactor adapted
for
     continuous-phase production; (b) adding air and propylene or
     isobutylene in a continuous manner; (c) recovering the acrylic acid or
     methacrylic acid formed; and (d) recycling the solvent to the reactor.
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L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:197562 CAPLUS
DN 122:16036
TI The performance of Pd, Pt, and Pd-Pt catalysts in lean exhaust
AU Beck, Donald D.; Monroe, David R.; DiMaggio, Craig L.; Sommers, John W.
CS General Motors Research, USA
SO Society of Automotive Engineers, [Special Publication] SP (1993), SP-957(U.S. and European Automotive Emissions Technology), 71-83
CODEN: SAESA2; ISSN: 0099-5908
DT Journal
LA English
AB A matrix of pelleted catalysts composed of Pt, Pd, Pt co-impregnated with Pd, and Pt phys. mixed with Pd supported on Al2O3 were compared with the same noble metal formulations supported on CeO2/Al2O3 for light-off and warmed-up performance in net lean exhaust. These catalysts were tested as prepared (fresh) and following a relatively severe thermal aging treatment (cycled between net lean and net rich environment at 1000°C for 4 h). Pd showed better light-off performance than Pt for catalyzing the oxidation of propylene, while Pt showed better light-off and warmed-up performance than Pd for catalyzing the oxidation of propane. Having both Pt and Pd present as a result of co-impregnation or phys. mixture results in good light-off and warmed-up performance for the conversion of both types of hydrocarbons. The presence of CeO2 generally decreases light-off performance for most of these catalysts.

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:422873 CAPLUS
DN 113:22873
TI Homogeneous catalytic reduction of nitric oxide by olefins in the presence of palladium(II) chloride
AU Cheng, C. H.; Sun, K. S.
CS Dep. Chem., Natl. Tsing Hua Univ., Hsinchu, 30043, Taiwan
SO Inorganic Chemistry (1990), 29(13), 2547-8
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
AB An aqueous solution of PdCl2 and CuCl2 catalyzes the reaction of NO with terminal olefins to give N2O and the corresponding 2-ketone or aldehyde. The rate of catalysis at ambient temperature corresponds to 0.384, 0.255, 0.298, 0.190 turnovers/h per Pd ion based on N2O produced for ethylene, propylene, 1-butene, and 1-hexene, resp. PdCl2 alone in a DMSO-H2O (9:1, volume/volume) mixture is also an effective catalyst for the reduction of NO by terminal olefins. The observed catalysis is inhibited by Cl- and by H+.

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1985:112790 CAPLUS
DN 102:112790
TI Studies on the reactivity of allylic compounds catalyzed by a palladium[0] complex - the effect of leaving groups
AU Huang, Jiling; Li, Bihua; Lu, Xiyan
CS Shanghai Inst. Org. Chem., Acad. Sin., Shanghai, Peop. Rep. China
SO Kexue Tongbao (Foreign Language Edition) (1984), 29(8), 1038-41
CODEN: KHTPBU; ISSN: 0454-0948
DT Journal
LA English
AB The effect of leaving groups X were determined in the reaction of the RCH:CHCH2X [X = OAc, O2CEt, OP(O)(OCH2CH:CH2)2, OPh, Br, NH2, NHC(S)NH2, etc.; R = e.g., H] with BH4, catalyzed by Pd(PPh3)4, to give propylene. The best leaving group was OAc.

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=> s palladium carbide
        172232 PALLADIUM
        219213 CARBIDE
L3          97 PALLADIUM CARBIDE
               (PALLADIUM(W)CARBIDE)

=> s l3 and propylene
        192172 PROPYLENE
L4           1 L3 AND PROPYLENE

=> d bib abs

L4   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   1998:352170  CAPLUS
DN   129:54753
TI   Primary hydroxy-modified fluoropolyethers with narrow molecular weight
     distribution and their manufacture
IN   Tsuji, Makoto; Nanbu, Hiromi
PA   Kao Corp., Japan
SO   Jpn. Kokai Tokkyo Koho, 11 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   JP 10147639          A     19980602    JP 1996-310406         19961121
PRAI JP 1996-310406               19961121
OS   MARPAT 129:54753
AB   The fluoropolyethers represent HO(AO)nR1 [R1 = H, (un)substituted C1-30
     hydrocarbyl, alkylsilyl, acyl; A = ethylene, propylene,
     CH2C(CF3)H; n = 5-2000] wherein A groups may be same or different and
     contain ≥5 CH2C(CF3)H.  The fluoropolyethers are manufactured by (1)
     random or block polymerizing trifluoropropylene oxide (I) with ethylene oxide
     and/or propylene oxide in the presence of only R2OH metal
     alkoxides [R2 = CRaRbRc, p-RdC6H4CH2; Ra, Rb, Rc = C1-10 alkyl,
     (alkyl)phenyl, benzyl; Rd = H, C1-10 alkyl, alkoxy] or R2OH and alkali
     metal hydroxides or alkali metal alkoxides, (2) stopping the polymerization
using
     terminators, and (3) decomposing initiation end groups with acids or
     reductants.  Thus, I was polymerized in the presence of BuOH at
     ≤40° for 3 h, reacted with 1N HCl, and reacted with
     chlorosulfonic acid for 12 h to give 89% HO[CH2CH(CF3)O]nH (n = 12 on the
     average) showing Mw/Mn 1.1 and Mn 1.9 + 103.


=> s l3 and reduction
        332043 REDUCTION
L5           2 L3 AND REDUCTION

=> d 1-2 bib abs

L5   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   1995:1000392  CAPLUS
DN   124:100540
TI   Effect of oxygen implantation on the electrochemical properties of
     palladium
AU   Fujihana, Takanobu; Ueshima, Masato; Takahashi, Katsuo; Iwaki, Masaya
CS   Advanced Technology Inc., Kanagawa, 245, Japan
SO   Materials Research Society Symposium Proceedings (1995), 354(Beam-Solid
     Interactions for Materials Synthesis and Characterization), 287-92
     CODEN: MRSPDH; ISSN: 0272-9172
PB   Materials Research Society
DT   Journal
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LA English
AB The electrochem. properties of O+-implanted Pd measured by cyclic voltammetry in a 0.25 mol dm-3 H2SO4 solution were studied in relation to their composition and structure. Implantation of 16O+ was performed with doses between 1017 and 1018 ions cm-2 at 150 keV, and at nearly room temperature SIMS, ERD combined with RBS, and XRD were used to analyze the composition depth profile and structure of O+-implanted Pd surface layers. The H atoms were accumulated with a Gaussian distribution and carbon materials containing the solid solution of PdCx (x = 0.13-0.15) were also formed in the near surface layers during O+-implantation. The distribution of implanted oxygen changed from Gaussian to trapezoidal as the dose increased, accompanied by the crystal growth of Pd(OH)2, and simultaneously, the amount of accumulated H atoms increased. The voltammetric measurements revealed that with an increase in the dose, the hydrogen absorption was suppressed at the early stage of sweep cycles, and at the final stage, the redox reaction of both hydrogen and Pd was activated. Probably the carbon materials containing the PdCx formed during O+-implantation suppress the hydrogen absorption, and the metallic Pd like a Pd-black formed by the reduction of Pd(OH)2 during voltammetric measurements causes the electrochem. activation of O+-implanted Pd.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:216185 CAPLUS
DN 112:216185
TI Rhodium(I)- or ruthenium(II)-catalyzed direct coupling of vinyl ketones with aldehydes and the subsequent reduction to give aldol derivatives anti-selectively
AU Sato, Susumu; Matsuda, Isamu; Shibata, Masahiro
CS Fac. Eng., Nagoya Univ., Nagoya, 464-01, Japan
SO Journal of Organometallic Chemistry (1989), 377(2-3), 347-56
CODEN: JORCAI; ISSN: 0022-328X
DT Journal
LA English
OS CASREACT 112:216185
AB A vinyl ketone reacts with an aldehyde to give an α-methylene-β-hydroxyalkanone with the concomitant formation of the vinyl ketone dimer in the presence of catalytic amount of RhH(PPh3)4 or RuH2(PPh3)4 under almost neutral conditions. The selectivity of the cross-coupling product is remarkably improved in the presence of an extra mole of aldehyde. This type of cross-coupling is explained by the intermediacy of the transition-metal enolate, which is formed by the Michael-type addition of M-H to a vinyl ketone. The subsequent hydrogenation of the C-C double bond of the α-methylene-β-hydroxyalkanone proceeds readily to give aldol derivs. in the presence of the catalyst. [Rh(COD)(DPPB)]PF6, [COD = 1,5-cyclooctadiene, DPPB = 1,4-bis(diphenylphosphino)butane] is the best choice of catalyst and gives aldol derivs. anti-selectively.

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DICTIONARY FILE UPDATES:    9 NOV 2007  HIGHEST RN 952797-35-2

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     (FILE 'HOME' ENTERED AT 13:00:20 ON 10 NOV 2007)

     FILE 'CAPLUS' ENTERED AT 13:03:48 ON 10 NOV 2007
L1           728 S REDUCTION OF PALLADIUM
L2             4 S L1 AND PROPYLENE
L3            97 S PALLADIUM CARBIDE
L4             1 S L3 AND PROPYLENE
L5             2 S L3 AND REDUCTION

     FILE 'REGISTRY' ENTERED AT 13:08:06 ON 10 NOV 2007

=> s pdc0.16/mf
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=> s pdc.16/mf
L7             0 PDC.16/MF

=> s pd1c.16/mf
L8             0 PD1C.16/MF

=> s pd1c.85/mf
L9             0 PD1C.85/MF
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